

. In re of:

Amendments to the Specification:

Please amend the paragraph at page 34, line 7 of the Specification to read as follows:

Recombinant human MBL ~~(Nativimmune A/S)~~ was used.

Please amend the series of paragraphs beginning at page 6, line 1 and ending at page 25, line 12 to read as follows

Collectins

1: Q9NPY3 (SEQ ID NO: 1)
Complement component Clq receptor precursor (Complement component 1, q subcomponent, receptor 1) (ClqRp) (ClqR(p)) (Clq/MBL/SPA receptor) (CD93 antigen) (CDw93)
gi|21759074|sp|Q9NPY3|CD93_HUMAN[21759074]

2: BAC05523 (SEQ ID NO: 2)
collectin placenta 1 [Mus musculus]
gi|21901969|dbj|BAC05523.1|[21901969]

3: AAM34743 (SEQ ID NO: 3)
46-kDa collectin precursor [Bos taurus]
gi|21105687|gb|AAM34743.1|AF509590_1[21105687]

4: AAM34742 (SEQ ID NO: 4)
46-kDa collectin precursor [Bos taurus]
gi|21105685|gb|AAM34742.1|AF509589_1[21105685]

5: XP_139613 (SEQ ID NO: 5)

. In re of:

similar to collectin sub-family member 10; collectin liver 1;
collectin 34 [Mus
musculus]
gi|20903807|ref|XP_139613.1|[20903807]

6: XP_123211 (SEQ ID NO: 6)
similar to collectin sub-family member 12 [Mus musculus]
gi|20876566|ref|XP_123211.1|[20876566]

7: NP_571645 (SEQ ID NO: 7)
mannose binding-like lectin [Danio rerio]
gi|18858997|ref|NP_571645.1|[18858997]

8: NP_569057 (SEQ ID NO: 8)
collectin sub-family member 12, isoform I; scavenger receptor
with C-type
lectin; collectin placenta 1 [Homo sapiens]
gi|18641360|ref|NP_569057.1|[18641360]

9: NP_110408 (SEQ ID NO: 9)
collectin sub-family member 12, isoform II; scavenger receptor
with C-type
lectin; collectin placenta 1 [Homo sapiens]
gi|18641358|ref|NP_110408.2|[18641358]

10: NP_569716 (SEQ ID NO: 10)
collectin sub-family member 12 [Mus musculus]
gi|18485494|ref|NP_569716.1|[18485494]

11: AAL61856 (SEQ ID NO: 11)
43kDa collectin precursor [Bos taurus]
gi|18252111|gb|AAL61856.1|[18252111]

12: AAL61855 (SEQ ID NO: 12)
43kDa collectin precursor [Bos taurus]
gi|18252109|gb|AAL61855.1|[18252109]

13: BAB22581 (SEQ ID NO: 13)
data source:SPTR, source key:Q9Y6Z7, evidence:ISS-homolog to
COLLECTIN

. In re of:

34~putative [Mus musculus]
gi|12833584|dbj|BAB22581.1|[12833584]

14: NP_034905 (SEQ ID NO: 14)
mannose binding lectin, liver (A) [Mus musculus]
gi|6754654|ref|NP_034905.1|[6754654]

15: NP_034906 (SEQ ID NO: 15)
mannose binding lectin, serum (C) [Mus musculus]
gi|6754656|ref|NP_034906.1|[6754656]

16: NP_006429 (SEQ ID NO: 16)
collectin sub-family member 10; collectin liver 1; collectin
34 [Homo sapiens]
gi|5453619|ref|NP_006429.1|[5453619]

17: BAB72147 (SEQ ID NO: 17)
collectin placenta 1 [Homo sapiens]
gi|17026101|dbj|BAB72147.1|[17026101]

18: AAF63470 (SEQ ID NO: 18)
mannose binding-like lectin precursor [Carassius auratus]
gi|7542474|gb|AAF63470.1|AF227739_1[7542474]

19: AAF63469 (SEQ ID NO: 19)
mannose binding-like lectin precursor [Danio rerio]
gi|7542472|gb|AAF63469.1|AF227738_1[7542472]

20: AAF63468 (SEQ ID NO: 20)
mannose binding-like lectin precursor [Cyprinus carpio]
gi|7542470|gb|AAF63468.1|AF227737_1[7542470]

21: AAK97540 (SEQ ID NO: 21)
surfactant protein A precursor [Gallus gallus]
gi|15420996|gb|AAK97540.1|AF411083_1[15420996]

22: LNMSMC (SEQ ID NO: 22)
mannose-binding lectin C precursor - mouse
gi|7428747|pir||LNMSMC[7428747]

. In re of:

23: LNMSMA (SEQ ID NO: 23)
mannose-binding lectin A precursor - mouse
gi|625320|pir||LNMSMA[625320]

24: JN0450 (SEQ ID NO: 24)
conglutinin precursor - bovine
gi|346501|pir||JN0450[346501]

25: A57250 (SEQ ID NO: 25)
mannan-binding protein - chicken (fragment)
gi|1362725|pir||A57250[1362725]

26: A53570 (SEQ ID NO: 26)
collectin-43 - bovine
gi|1083017|pir||A53570[1083017]

27: AAF28384 (SEQ ID NO: 27)
lung surfactant protein A [Sus scrofa]
gi|6782434|gb|AAF28384.1|AF133668_1[6782434]

28: AAF22145 (SEQ ID NO: 28)
lung surfactant protein D precursor; SPD; SP-D; CP4 [Sus
scrofa]
gi|6760482|gb|AAF22145.2|AF132496_1[6760482]

29: P41317 (SEQ ID NO: 29)
MANNOSE-BINDING PROTEIN C PRECURSOR (MBP-C) (MANNAN-BINDING
PROTEIN)
(RA-REACTIVE FACTOR P28A SUBUNIT) (RARF/P28A)
gi|1346477|sp|P41317|MABC_MOUSE[1346477]

30: P39039 (SEQ ID NO: 30)
MANNOSE-BINDING PROTEIN A PRECURSOR (MBP-A) (MANNAN-BINDING
PROTEIN)
(RA-REACTIVE FACTOR POLYSACCHARIDE-BINDING COMPONENT P28B
POLYPEPTIDE) (RARF
P28B)
gi|729972|sp|P39039|MABA_MOUSE[729972]

In re of:

31: P42916 (SEQ ID NO: 31)
COLLECTIN-43 (CL-43)
gi|1168967|sp|P42916|CL43_BOVIN[1168967]

32: CAB56155 (SEQ ID NO: 32)
DMBT1/8kb.2 protein [Homo sapiens]
gi|5912464|emb|CAB56155.1|[5912464]

33: BAA81747 (SEQ ID NO: 33)
collectin 34 [Homo sapiens]
gi|5162875|dbj|BAA81747.1|[5162875]

34: AAB94071 (SEQ ID NO: 34)
mannan-binding lectin; collectin [Gallus gallus]
gi|2736145|gb|AAB94071.1|[2736145]

35: AAB36019 (SEQ ID NO: 35)
mannan-binding protein, MBP=lectin {N-terminal} [chickens,
serum, Peptide
Partial, 30 aa] [Gallus gallus]
gi|1311692|gb|AAB36019.1|[1311692]

36: AAB27504 (SEQ ID NO: 36)
conglutinin (N) {N-terminal} [cattle, Peptide Partial, 60 aa]
[Bos taurus]
gi|386660|gb|AAB27504.1|[386660]

37: CAA53511 (SEQ ID NO: 37)
collectin-43 [Bos taurus]
gi|499385|emb|CAA53511.1|[499385]

38: AAA82010 (SEQ ID NO: 38)
mannose-binding protein C [Mus musculus]
gi|773288|gb|AAA82010.1|[773288]

39: AAA82009 (SEQ ID NO: 39)
mannose-binding protein A [Mus musculus]
gi|773280|gb|AAA82009.1|[773280]

. In re of:

Lung surfactant protein

1: 1KMRA (SEQ ID NO: 40)

Chain A, Solution Nmr Structure Of Surfactant Protein B (11-25) (Sp- B11-25)

gi|22219056|pdb|1KMR|A[22219056]

2: P50404 (SEQ ID NO: 41)

Pulmonary surfactant-associated protein D precursor (SP-D) (PSP-D)

gi|1709879|sp|P50404|PSPD_MOUSE[1709879]

3: P06908 (SEQ ID NO: 42)

Pulmonary surfactant-associated protein A precursor (SP-A) (PSP-A) (PSAP)

gi|1172693|sp|P06908|PSPA_CANFA[1172693]

4: P35247 (SEQ ID NO: 43)

Pulmonary surfactant-associated protein D precursor (SP-D) (PSP-D)

gi|464486|sp|P35247|PSPD_HUMAN[464486]

5: P12842 (SEQ ID NO: 44)

Pulmonary surfactant-associated protein A precursor (SP-A) (PSP-A) (PSAP)

gi|131413|sp|P12842|PSPA_RABIT[131413]

6: NP_033186 (SEQ ID NO: 45)

surfactant associated protein D [Mus musculus]

gi|6677921|ref|NP_033186.1|[6677921]

7: 1B08C (SEQ ID NO: 46)

Chain C, Lung Surfactant Protein D (Sp-D) (Fragment)

gi|6573321|pdb|1B08|C[6573321]

8: 1B08B (SEQ ID NO: 47)

Chain B, Lung Surfactant Protein D (Sp-D) (Fragment)

gi|6573320|pdb|1B08|B[6573320]

. In re of:

9: 1B08A (SEQ ID NO: 48)

Chain A, Lung Surfactant Protein D (Sp-D) (Fragment)

gi|6573319|pdb|1B08|A[6573319]

10: NP_060049 (SEQ ID NO: 49)

deleted in malignant brain tumors 1 isoform c precursor [Homo sapiens]

gi|8923740|ref|NP_060049.1|[8923740]

11: NP_015568 (SEQ ID NO: 50)

deleted in malignant brain tumors 1 isoform b precursor [Homo sapiens]

gi|6633801|ref|NP_015568.1|[6633801]

12: NP_004397 (SEQ ID NO: 51)

deleted in malignant brain tumors 1 isoform a precursor [Homo sapiens]

gi|4758170|ref|NP_004397.1|[4758170]

13: LNBOC1 (SEQ ID NO: 52)

pulmonary surfactant protein C - bovine

gi|7428752|pir||LNBOC1[7428752]

14: LNDGC1 (SEQ ID NO: 53)

pulmonary surfactant protein C - dog

gi|7428750|pir||LNDGC1[7428750]

15: JN0450 (SEQ ID NO: 54)

conglutinin precursor - bovine

gi|346501|pir||JN0450[346501]

16: A45225 (SEQ ID NO: 55)

pulmonary surfactant protein D precursor - human

gi|346375|pir||A45225[346375]

17: LNHUC (SEQ ID NO: 56)

pulmonary surfactant protein C precursor, long splice form - human

gi|71983|pir||LNHUC[71983]

. In re of:

18: LNDGPS (SEQ ID NO: 57)
pulmonary surfactant protein A precursor - dog
gi|71970|pir||LNDGPS[71970]

19: LNHUPS (SEQ ID NO: 58)
pulmonary surfactant protein A precursor (genomic clone) -
human
gi|71967|pir||LNHUPS[71967]

20: A53570 (SEQ ID NO: 59)
collectin-43 - bovine
gi|1083017|pir||A53570[1083017]

21: S33603 (SEQ ID NO: 60)
surfactant protein D - bovine
gi|423283|pir||S33603[423283]

22: AAF28384 (SEQ ID NO: 61)
lung surfactant protein A [Sus scrofa]
gi|6782434|gb|AAF28384.1|AF133668_1[6782434]

23: AAF22145 (SEQ ID NO: 62)
lung surfactant protein D precursor; SPD; SP-D; CP4 [Sus
scrofa]
gi|6760482|gb|AAF22145.2|AF132496_1[6760482]

24: P15783 (SEQ ID NO: 63)
PULMONARY SURFACTANT-ASSOCIATED PROTEIN C (SP-C) (PULMONARY
SURFACTANT-ASSOCIATED PROTEOLIPID SPL(VAL))
gi|131422|sp|P15783|PSPC_BOVIN[131422]

25: P35246 (SEQ ID NO: 64)
PULMONARY SURFACTANT-ASSOCIATED PROTEIN D PRECURSOR (SP-D)
(PSP-D)
gi|464485|sp|P35246|PSPD_BOVIN[464485]

26: P42916 (SEQ ID NO: 65)
COLLECTIN-43 (CL-43)
gi|1168967|sp|P42916|CL43_BOVIN[1168967]

. In re of:

27: CAB56155 (SEQ ID NO: 66)
DMBT1/8kb.2 protein [Homo sapiens]
gi|5912464|emb|CAB56155.1|[5912464]

28: AAD49696 (SEQ ID NO: 67)
gp-340 variant protein [Homo sapiens]
gi|5733598|gb|AAD49696.1|AF159456_1[5733598]

29: AAD31380 (SEQ ID NO: 68)
surfactant protein D precursor [Mus musculus]
gi|4877556|gb|AAD31380.1|AF047742_1[4877556]

30: B61249 (SEQ ID NO: 69)
pulmonary surfactant protein C - dog
gi|539712|pir||B61249[539712]

31: S00609 (SEQ ID NO: 70)
pulmonary surfactant protein C - bovine
gi|89749|pir||S00609[89749]

32: A43628 (SEQ ID NO: 71)
pulmonary surfactant protein A - human (fragments)
gi|280854|pir||A43628[280854]

33: AAB48076 (SEQ ID NO: 72)
Surfactant protein B (SP-B) [Oryctolagus cuniculus]
gi|1850933|gb|AAB48076.1|[1850933]

34: 1901176A (SEQ ID NO: 73)
surfactant protein A
gi|382753|prf||1901176A[382753]

35: CAA53510 (SEQ ID NO: 74)
lung surfactant protein D [Bos taurus]
gi|415939|emb|CAA53510.1|[415939]

36: CAA53511 (SEQ ID NO: 75)

. In re of:

collectin-43 [Bos taurus]
gi|499385|emb|CAA53511.1|[499385]

37: CAA46152 (SEQ ID NO: 76)
lung surfactant protein D [Homo sapiens]
gi|34767|emb|CAA46152.1|[34767]

38: AAA92788 (SEQ ID NO: 77)
lung surfactant protein C [Rattus norvegicus]
gi|595282|gb|AAA92788.1|[595282]

39: AAA31468 (SEQ ID NO: 78)
surfactant protein A [Oryctolagus cuniculus]
gi|431446|gb|AAA31468.1|[431446]

Mannose binding lectin

1: Q9NPY3 (SEQ ID NO: 79)
Complement component Clq receptor precursor (Complement
component 1, q
subcomponent, receptor 1) (ClqRp) (ClqR(p)) (Clq/MBL/SPA
receptor) (CD93
antigen) (CDw93)
gi|21759074|sp|Q9NPY3|CD93_HUMAN[21759074]

2: O89103 (SEQ ID NO: 80)
Complement component Clq receptor precursor (Complement
component 1, q
subcomponent, receptor 1) (ClqRp) (ClqR(p)) (Clq/MBL/SPA
receptor) (CD93
antigen) (Cell surface antigen AA4) (Lymphocyte antigen 68)
gi|21541998|sp|O89103|CD93_MOUSE[21541998]

3: P09871 (SEQ ID NO: 81)
Complement C1s component precursor (C1 esterase)
gi|115205|sp|P09871|C1S_HUMAN[115205]

4: NP_036204 (SEQ ID NO: 82)
complement component 1, q subcomponent, receptor 1; complement
component Clq
receptor [Homo sapiens]

. In re of:

gi|6912282|ref|NP_036204.1|[6912282]

5: NP_000233 (SEQ ID NO: 83)

soluble mannose-binding lectin precursor; mannose-binding lectin; mannose binding protein; Mannose-binding lectin 2, soluble (opsonic defect) [Homo sapiens]

gi|4557739|ref|NP_000233.1|[4557739]

6: AAM94381 (SEQ ID NO: 84)

lectin precursor [Zephyranthes candida]

gi|22212748|gb|AAM94381.1|AF527385_1[22212748]

7: AAH21762 (SEQ ID NO: 85)

mannose binding lectin, liver (A) [Mus musculus]

gi|18256010|gb|AAH21762.1|[18256010]

8: AAH10760 (SEQ ID NO: 86)

Similar to mannose binding lectin, serum (C) [Mus musculus]

gi|14789670|gb|AAH10760.1|[14789670]

9: P11226 (SEQ ID NO: 87)

Mannose-binding protein C precursor (MBP-C) (MBP1) (Mannan-binding protein)

(Mannose-binding lectin)

gi|126676|sp|P11226|MABC_HUMAN[126676]

10: NP_034897 (SEQ ID NO: 88)

mannan-binding lectin serine protease 2 [Mus musculus]

gi|6754642|ref|NP_034897.1|[6754642]

11: Q9ET61 (SEQ ID NO: 89)

Complement component C1q receptor precursor (Complement component 1, q

subcomponent, receptor 1) (C1qRp) (C1qR(p)) (C1q/MBL/SPA receptor) (CD93

antigen) (Cell surface antigen AA4)

gi|21541989|sp|Q9ET61|CD93_RAT[21541989]

. In re of:

12: NP_006601 (SEQ ID NO: 90)
mannan-binding lectin serine protease 2, isoform 1 precursor;
MBL-associated
plasma protein of 19 kD; small MBL-associated protein [Homo sapiens]
gi|21264363|ref|NP_006601.2|[21264363]

13: NP_631947 (SEQ ID NO: 91)
mannan-binding lectin serine protease 2, isoform 2 precursor;
MBL-associated
plasma protein of 19 kD; small MBL-associated protein [Homo sapiens]
gi|21264361|ref|NP_631947.1|[21264361]

14: NP_624302 (SEQ ID NO: 92)
mannan-binding lectin serine protease 1, isoform 2, precursor;
protease, serine,
5 (mannose-binding protein-associated); manan-binding lectin
serine protease-1;
Ra-reactive factor serine protease p100 [Homo sapiens]
gi|21264359|ref|NP_624302.1|[21264359]

15: NP_001870 (SEQ ID NO: 93)
mannan-binding lectin serine protease 1, isoform 1, precursor;
protease, serine,
5 (mannose-binding protein-associated); manan-binding lectin
serine protease-1;
Ra-reactive factor serine protease p100 [Homo sapiens]
gi|21264357|ref|NP_001870.3|[21264357]

16: XP_122683 (SEQ ID NO: 94)
similar to mannose binding lectin, liver (A) [Mus musculus]
gi|20872845|ref|XP_122683.1|[20872845]

17: AAM21196 (SEQ ID NO: 95)
C-type mannose-binding lectin [Oncorhynchus mykiss]
gi|20385163|gb|AAM21196.1|AF363271_1[20385163]

18: AAD45377 (SEQ ID NO: 96)
mannose-binding lectin [Sus scrofa]
gi|5566370|gb|AAD45377.1|AF164576_1[5566370]

. In re of:

19: NP_034905 (SEQ ID NO: 97)
mannose binding lectin, liver (A) [Mus musculus]
gi|6754654|ref|NP_034905.1|[6754654]

20: NP_034906 (SEQ ID NO: 98)
mannose binding lectin, serum (C) [Mus musculus]
gi|6754656|ref|NP_034906.1|[6754656]

21: AAL14428 (SEQ ID NO: 99)
dendritic cell-specific ICAM-3 grabbing nonintegrin [Macaca nemestrina]
gi|16118455|gb|AAL14428.1|AF343727_1[16118455]

22: AAF63470 (SEQ ID NO: 100)
mannose binding-like lectin precursor [Carassius auratus]
gi|7542474|gb|AAF63470.1|AF227739_1[7542474]

23: AAF63469 (SEQ ID NO: 101)
mannose binding-like lectin precursor [Danio rerio]
gi|7542472|gb|AAF63469.1|AF227738_1[7542472]

24: AAF63468 (SEQ ID NO: 102)
mannose binding-like lectin precursor [Cyprinus carpio]
gi|7542470|gb|AAF63468.1|AF227737_1[7542470]

25: AAF21018 (SEQ ID NO: 103)
mannose-binding lectin 2 [Sus scrofa]
gi|6644342|gb|AAF21018.1|AF208528_1[6644342]

26: AAK30298 (SEQ ID NO: 104)
mannose-binding lectin precursor protein [Gallus gallus]
gi|13561409|gb|AAK30298.1|[13561409]

27: LNMSMC (SEQ ID NO: 22)
mannose-binding lectin C precursor - mouse
gi|7428747|pir||LNMSMC[7428747]

28: LNMSMA (SEQ ID NO: 23)

. In re of:

mannose-binding lectin A precursor - mouse
gi|625320|pir||LNMSMA[625320]

29: LNRTMA (SEQ ID NO: 105)
mannose-binding lectin A precursor - rat
gi|71975|pir||LNRTMA[71975]

30: LNRTMC (SEQ ID NO: 106)
mannose-binding lectin C precursor - rat
gi|71974|pir||LNRTMC[71974]

31: LNHUMC (SEQ ID NO: 107)
mannose-binding lectin precursor - human
gi|71973|pir||LNHUMC[71973]

32: BAA86864 (SEQ ID NO: 108)
complement C1s [Homo sapiens]
gi|6407558|dbj|BAA86864.1|[6407558]

33: P49329 (SEQ ID NO: 109)
MANNOSE-SPECIFIC LECTIN (AGGLUTININ)
gi|1346426|sp|P49329|LEC_ALOAR[1346426]

34: CAB56124 (SEQ ID NO: 110)
mannose-binding lectin [Homo sapiens]
gi|5911809|emb|CAB56124.1|[5911809]

35: CAB56123 (SEQ ID NO: 111)
mannose-binding lectin [Homo sapiens]
gi|5911807|emb|CAB56123.1|[5911807]

36: CAB56122 (SEQ ID NO: 112)
mannose-binding lectin [Homo sapiens]
gi|5911798|emb|CAB56122.1|[5911798]

37: CAB56121 (SEQ ID NO: 113)
mannose-binding lectin [Homo sapiens]
gi|5911796|emb|CAB56121.1|[5911796]

. In re of:

38: CAB56045 (SEQ ID NO: 114)
mannose-binding lectin [Homo sapiens]
gi|5911794|emb|CAB56045.1|[5911794]

39: CAB56120 (SEQ ID NO: 115)
mannose-binding lectin [Homo sapiens]
gi|5911792|emb|CAB56120.1|[5911792]

40: CAB56044 (SEQ ID NO: 116)
mannose-binding lectin [Homo sapiens]
gi|5911790|emb|CAB56044.1|[5911790]

41: AAB53110 (SEQ ID NO: 117)
ClqR(p) [Homo sapiens]
gi|2052498|gb|AAB53110.1|[2052498]

The collectin preferably comprises at least 10, such as at least 12, for example at least 15, such as at least 20, for example at least 25, such as at least 30, for example at least 35, such as at least 40, for example at least 50 consecutive amino acid residues of the collectin or of a variant or a homologue to said collectin. Such a variant or homologue is preferably at least 70%, such as 80%, for example 90%, such as 95% identical to the collectin.

Ficolins

The ficolin according to the invention may be L-ficolin, H-ficolin or M-ficolin or variants or homologues thereof. In a preferred embodiment the ficolin is L-ficolin.

In a particular preferred embodiment the ficolin has one of the sequences listed below with reference to their database

. In re of:

and accession No. For each of the sequences the Cystein rich region and the collagen-like region is described.

NP_003656. ficolin 3 precursor; ficolin (collagen/fibrinogen domain-containing) 3 (Hakata antigen) [Homo sapiens]
[gi:4504331] (SEQ ID NO: 118)

90..299 /region_name="pfam00147, fibrinogen_C, Fibrinogen beta and gamma chains, C-terminal globular domain"

90..299 /region_name="smart00186, FBG, Fibrinogen-related domains (FReDs); Domain present at the C-termini of fibrinogen beta and gamma chains, and a variety of fibrinogen-related proteins, including tenascin and Drosophila scabrous"

```
1 mdllwilpsl wllllggpac lktqehpscp gpreleaskv vllpscpgap
gspgekgapg
61 pggpppgpgk mgpkgepgdp vnllrcqegp rncrellsqg atlsgwyhlc
lpegralpvf
121 cdmtdtegggw lvfqrrqdgs vdffrswssy ragfgnqese fwlgnenlhq
ltlqgnwelr
181 veledfngnr tfahyatfrl lgevdhyqla lgkfsegtag dsllslhsgrp
fttydadhds
241 snsncavivh gawwyascyr snlngryavs daaahkygid wasgrgvghp
yrrvrmlr
```

XP_116792. similar to Ficolin 2 precursor (Collagen/fibrinogen domain-containing protein 2) (Ficolin-B) (Ficolin B) (Serum lectin P35) (EBP-37) (Hucolin) (L-Ficolin) [Homo sapiens]
[gi:20477458] (SEQ ID NO: 119)

91..168 /region_name="pfam00147, fibrinogen_C, Fibrinogen beta and gamma chains, C-terminal globular domain"

91..168 /region_name="smart00186, FBG, Fibrinogen-related domains (FReDs); Domain present at the C-termini of fibrinogen beta and gamma chains, and a variety of fibrinogen-related proteins, including tenascin and Drosophila scabrous"

```
1 mgpallalsf lwtmaltedt cpamleyval nsepghmaskn psrrhglsl1
vvdqggpgarg
61 vrtdqggpsga dpgslelhge cpifpseqvi lthhnnypfs tedqdndrda
encavhyqga
121 wwyaschlsh lngvylggar dsftnginwk sgkgnnysyk vsemkvrpt
```

O00602. Ficolin 1 precursor (Collagen/fibrinogen domain-containing protein 1) (Ficolin-A) (Ficolin A) (M-Ficolin)
[gi:20455484] (SEQ ID NO: 120)

. In re of:

1..29 /gene="FCN1" /region_name="Signal" /note="POTENTIAL."
30..326 /gene="FCN1" /region_name="Mature chain"
/note="FICOLIN 1."
55..93 /gene="FCN1" /region_name="Domain" /note="COLLAGEN-
LIKE."
133 /gene="FCN1" /region_name="Conflict" /note="T -> N (IN
REF. 1)."
144..290 /gene="FCN1" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."
287 /gene="FCN1" /region_name="Conflict" /note="N -> S (IN
REF. 1)."
305 /gene="FCN1" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."

1 melsgatmar glavllvlfl hiknlpaqaa dtcpevkvg legsdkltil
rgcpglpgap
61 gpkgeagvig ergerglpga pgkagpvgpk gdrgekmgmrgek gkdagqsqs
catgprnckd
121 lldrgyflsg whtiylpdcrlptvlcdmdt dgggwtvfqr rmdgsvdfyr
dwaaykqgfg
181 sqlgefvlgn dnihaltaqg sselrvdlvd fegnhqfaky ksfkvadeae
kyklvlgafr
241 ggsagnsltg hnnffstkd qdndvssnc aekfggawwy adchasnlng
lylmgphesy
301 anginwsaak gykysykvse mkvrpa //

O75636. Ficolin 3 precursor (Collagen/fibrinogen domain-
containing protein 3) (Collagen/fibrinogen domain-containing
lectin 3 P35) (Hakata antigen) [gi:13124185]
(SEQ ID NO: 121)

1..21 /gene="FCN3" /region_name="Signal" /note="POTENTIAL."
22..299 /gene="FCN3" /region_name="Mature chain"
/note="FICOLIN 3."
48..80 /gene="FCN3" /region_name="Domain" /note="COLLAGEN-
LIKE."
50 /gene="FCN3" /site_type="hydroxylation"
53 /gene="FCN3" /site_type="hydroxylation"
59 /gene="FCN3" /site_type="hydroxylation"
65 /gene="FCN3" /site_type="hydroxylation"
68 /gene="FCN3" /site_type="hydroxylation"
77 /gene="FCN3" /site_type="hydroxylation"
119..265 /gene="FCN3" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."
189 /gene="FCN3" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."

. In re of:

```
1 mdllwilpsl wllllggpac lktqehpscp gpreleaskv vllpscpgap
gspgekgapg
61 pggppgppgk mgpkgepgdp vnllrcqegp rncrellsqg atlsqwyhlc
lpegralpvf
121 cdmtdtegggw lvfqrqqdgs vdffrswssy ragfgnqese fwlgnenlhq
ltlqgnwelr
181 veledfngnr tfahyatfrl lgevdhyqla lgkfsegtag dslslhsgrp
fttydadhdh
241 snsncavivh gawwyascyr snlngryavs daaahkygid wasgrgvghp
yrrvrmmrlr
```

XP_130120. similar to Ficolin 2 precursor (Collagen/fibrinogen domain-containing protein 2) (Ficolin-B) (Ficolin B) (Serum lectin P35) (EBP-37) (Hucolin) [Mus musculus] [gi:20823464] (SEQ ID NO: 122)

```
59..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
59..89 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
60..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
61..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
61..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
61..95 /region_name="Collagen triple helix repeat (20 copies)"
/note="Collagen" /db_xref="CDD:pfam01391"
103..312 /region_name="Fibrinogen beta and gamma chains, C-
terminal globular domain" /note="fibrinogen_C"
/db_xref="CDD:pfam00147"
103..312 /region_name="Fibrinogen-related domains (FReDs)"
/note="FBG" /db_xref="CDD:smart00186"
```

```
1 malgsaalfv ltltvhaagt cpelkvldle gykqltilqg cpglpgaagp
kgeagakgdr
61 gesglpgipg kegptgpkgn qgekgrgek gdsgpsqsca tgprtckell
tqghfltgy
121 tiylpdcrl tvlcmdtdg ggwtvfqrrl dgsvdffrdw tsykrfgsq
lgefwlgn
```

. In re of:

181 ihalttqgts elrvdlsdfe gkhdfakyss fqi qgeaeky klilgnflgg
gagdsltphn
241 nrlfstkdqd ndgstsscam gyhgawwysq chtsnlngly lrgphksyan
gvnwkswrgy
301 nysckvsemk vrli

NP_056654. ficolin 2 isoform d precursor; ficolin
(collagen/fibrinogen domain-containing lectin) 2 (hucolin);
ficolin (collagen/fibrinogen domain-containing lectin) 2;
hucolin [Homo sapiens] [gi:8051590] (SEQ ID NO: 123)

39..95 /region_name="collagen-like domain"

1 meldravgv1 gaatl11lsfl gmawalqaad tcpevkmvgl egskltilr
gcpglpgapg

61 dkgeagtngk rgergppgpp gkagppgpng apgeppclt gd

NP_056653. ficolin 2 isoform c precursor; ficolin
(collagen/fibrinogen domain-containing lectin) 2 (hucolin);
ficolin (collagen/fibrinogen domain-containing lectin) 2;
hucolin [Homo sapiens] [gi:8051588] (SEQ ID NO: 124)

39..95 /region_name="collagen-like domain"

102..143 /region_name="Fibrinogen beta and gamma chains, C-
terminal globular domain" /note="fibrinogen_C"

/db_xref="CDD:pfam00147"

102..143 /region_name="Fibrinogen-related domains (FReDs)"

/note="FBG" /db_xref="CDD:smart00186"

1 meldravgv1 gaatl11lsfl gmawalqaad tcpevkmvgl egskltilr
gcpglpgapg

61 dkgeagtngk rgergppgpp gkagppgpng apgeppclt gprrtckdlld
rghflsgwht

121 iylpdcrlt vlcdmtdgg gwtvsvglgr ggqpgspggq aahlvgehtl
efsillvgs

181 qr

NP_056652. ficolin 2 isoform b precursor; ficolin
(collagen/fibrinogen domain-containing lectin) 2 (hucolin);
ficolin (collagen/fibrinogen domain-containing lectin) 2;
hucolin [Homo sapiens] [gi:8051586] (SEQ ID NO: 125)

sig peptide 1..25

mat peptide 26..275

60..275 /region_name="FBG domain" /note="fibrinogen beta/gamma
homology" 64..275 /region_name="Fibrinogen-related domains

(FReDs)" /note="FBG" /db_xref="CDD:smart00186"

. In re of:

64..274 /region_name="Fibrinogen beta and gamma chains, C-terminal globular domain" /note="fibrinogen_C" /db_xref="CDD:pfam00147"

1 meldravgv1 gaatl1llsfl gmawalqaad tcpgergppg ppgkagppgp ngapgeppgc

61 ltgprtckdl ldrghflsgw htiylpdcpr ltv1cdmtd gggwtvfqrr vdgsvdfyrd

121 watykqgfgs rlgefwwlgn nihaltaqgt selrvdlvdf ednyqfakyr sfkvadeaek

181 ynlvlgaave gsagds1tfh nnqsfstkdq dnd1ntgnca vmfqqawwyk nchvsnlng

241 y1rgthgsfa nginwkskg ynysykvsem kvrrpa

NP_001994. ficolin 1 precursor; ficolin (collagen/fibrinogen domain-containing) 1 [Homo sapiens] [gi:8051584] (SEQ ID NO: 126)

sig peptide 1..27

mat peptide 28..326

40..108 /region_name="collagen-like domain"

50..105 /region_name="Collagen triple helix repeat (20 copies)" /note="Collagen" /db_xref="CDD:pfam01391"

51..107 /region_name="Collagen triple helix repeat (20 copies)" /note="Collagen" /db_xref="CDD:pfam01391"

52..106 /region_name="Collagen triple helix repeat (20 copies)" /note="Collagen" /db_xref="CDD:pfam01391"

115..326 /region_name="FBG domain" /note="fibrinogen beta/gamma homology" 115..326 /region_name="Fibrinogen-related domains (FReDs)" /note="FBG" /db_xref="CDD:smart00186"

115..325 /region_name="Fibrinogen beta and gamma chains, C-terminal globular domain" /note="fibrinogen_C"

/db_xref="CDD:pfam00147" variation 315

/db_xref="dbSNP:1128428" variation 316

/db_xref="dbSNP:1128429" variation 317

/db_xref="dbSNP:1128430"

1 melsgatmar glavllvlfl hiknlpaqaa dtcpevkvvlg legsdkltil rgcpglpgap

61 gpkgeagvig ergerglpga pgkagpvpgk gdrgekmgrrg ekgdagqsgs catgprnckd

121 lldrgyflsg whtiylpdcpr pltv1cdmtd dgggwtvfqrr rmdgsvdfyrd dwaaykqgfg

181 sqlgefwwlgn dnihaltaqg sselrvdlvd fegnhqfakyr ksfskvadeae kyklvlgaav

241 ggsagnsltg hnnnffstkd qdndvsssn aekfqqawwy adchasnlng lylmgphesy

301 anginwsaak gykysykvse mkvrpa

. In re of:

NP_004099. ficolin 2 isoform a precursor; ficolin
(collagen/fibrinogen domain-containing lectin) 2 (hucolin);
ficolin (collagen/fibrinogen domain-containing lectin) 2;
hucolin [Homo sapiens] [gi:4758348] (SEQ ID NO: 127)

sig peptide 1..25

mat peptide 26..313

39..95 /region_name="collagen-like domain"

98..313 /region_name="FBG domain" /note="fibrinogen beta/gamma
homology" 102..313 /region_name="Fibrinogen-related domains
(FReDs)" /note="FBG" /db_xref="CDD:smart00186"

102..312 /region_name="Fibrinogen beta and gamma chains, C-
terminal globular domain" /note="fibrinogen_C"
/db_xref="CDD:pfam00147"

1 meldravgv1 gaatl11lsfl gmawalqaad tcpevkmvgl egsdkltlr
gcpglpgapg

61 dkgeagtngk rgergppgpp gkagppgpng apgepppclt gprrtckdlld
rghflsgwht

121 iylpdcrrpl vlcdmdtdgg gwtvfqrrvd gsvdfyrdwa tykqgfgsrl
gefwnlndni

181 haltaggtse lrvdlvdfed nyqfakyrfs kvadeaekyn lvlgafvegs
agds1tfhnn

241 qsfstkddqn dlntgncavm fggawwyknc hvsnlngryl rgthgsfang
inwkskgkyn

301 ysykvsemkv rpa

Q9WTS8. Ficolin 1 precursor (Collagen/fibrinogen domain-
containing protein 1) (Ficolin-A) (Ficolin A) (M-Ficolin)
[gi:13124116] (SEQ ID NO: 128)

1..22 /gene="FCN1" /region_name="Signal" /note="POTENTIAL."

23..335 /gene="FCN1" /region_name="Mature chain"

/note="FICOLIN 1."

50..88 /gene="FCN1" /region_name="Domain" /note="COLLAGEN-
LIKE."

152..298 /gene="FCN1" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."

271 /gene="FCN1" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."

1 mwwpmlwafp vllclcssqa lggesgacpd vkivglgaqd kvaviqscps
fpgppgpkge

61 pgspagrger glqgspgkmg ppgskgepgt mgppgvkgek gergtasplg
qkelgdalcr

121 rgprskdll trgifltgwy tiylpdcrrpl tvlcdmdvdg ggwtvfqrrv
dgsinfyrdw

. In re of:

181 dsykrfgfnl gtefwlgndy lhlltangnq elrvdlrefq gqtsfakys
fqvsgeqeky
241 kltlgqfleg tagdsltkhn nmafsthdd ndtnggknca alfhgawwyh
dchqsnlgr
301 ylpqshesya dginwlsgrg hrysyaem kiras

Q15485. Ficolin 2 precursor (Collagen/fibrinogen domain-
containing protein 2) (Ficolin-B) (Ficolin B) (Serum lectin
P35) (EBP-37) (Hucolin) (L-Ficolin) [gi:13124203]

(SEQ ID NO: 129)

1..25 /gene="FCN2" /region_name="Signal" /note="POTENTIAL."
26..313 /gene="FCN2" /region_name="Mature chain"
/note="FICOLIN 2."
54..92 /gene="FCN2" /region_name="Domain" /note="COLLAGEN-
LIKE."
131..277 /gene="FCN2" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."
240 /gene="FCN2" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."
300 /gene="FCN2" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."

1 meldravglv gaatlillsfl gmawalqaad tcpevkmvgl egskltilr
gcpglpgapg
61 dkgeagtngk rgergppgpp gkagppgpng apgeppclt gprrtckdlld
rghflsgwht
121 iylpdcrlt vlcdmdtdgg gwtvfqrrvd gsvdfyrdwa tykqgfgsrl
gefwlgndni
181 haltaqgtse lrvdlvdfed nyqfakysf kvadeaekyn lvgafvegs
agdsltfhnn
241 qsfstkddn dlntgncavm fggawwyknc hvsnlgryl rgthgsfang
inwksgkgyn
301 ysykvsemkv rpa

O70497. Ficolin 2 precursor (Collagen/fibrinogen domain-
containing protein 2) (Ficolin-B) (Ficolin B) (Serum lectin
P35) (EBP-37) (Hucolin) [gi:13124181]

(SEQ ID NO: 130)

<1..15 /gene="FCN2" /region_name="Signal" /note="POTENTIAL."
16..>306 /gene="FCN2" /region_name="Mature chain"
/note="FICOLIN 2."
41..79 /gene="FCN2" /region_name="Domain" /note="COLLAGEN-
LIKE."
130..276 /gene="FCN2" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."
299 /gene="FCN2" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."

. In re of:

```
1  lgsaalfvlt ltvhaagtcp elkvldleg y kqltilqgcp glpgaagpkg
eagakgdrge
61  sglpgipgke gptgpgknqg ekgirgekdg sgpsqscatg prtckelltg
ghfltgywti
121 ylpdcrpmtv lcdmdtdggg wtvfqrldg svdffrdwts ykrfgsgqlg
efwlgndnih
181 alttqgt sel rvdlsdfegk hdfakyssf q iqgeaeky k l ilgnflggga
gdsltphnnr
241 lfstkdq dnd gstsscangy hgawwysqch tsnlnglylr gphksyangv
nwkswrgyny
301 sckvse
```

O70165. Ficolin 1 precursor (Collagen/fibrinogen domain-containing protein 1) (Ficolin-A) (Ficolin A) (M-Ficolin) [gi:13124179] (SEQ ID NO: 131)

```
1..22 /gene="FCN1" /region_name="Signal" /note="POTENTIAL."
23..334 /gene="FCN1" /region_name="Mature chain"
/note="FICOLIN 1."
50..88 /gene="FCN1" /region_name="Domain" /note="COLLAGEN-
LIKE."
152..298 /gene="FCN1" /region_name="Domain" /note="FIBRINOGEN
C-TERMINAL."
261 /gene="FCN1" /site_type="glycosylation" /note="N-LINKED
(GLCNAC...) (POTENTIAL)."
```

```
1  mqwptlwafs gllclcpsqa lgqergacpd vkvvglgagd kvvviqscpg
fpgppgpkge
61  pgspagrger gfqgspgkmg pagskgepgt mgppgvkgek gdtgaapslg
ekelgdtlcq
121 rgprscdll trgifltgwy tihlpdcrpl tvlcdmdvdg ggwtvfqrrv
dgsidffrdw
181 dsykrfgnl gtefwlgndy lhl ltangnq elrvdlqdfq gkgsyakyss
fqvseegeky
241 kltlgqfleg tagdslt khn nmsftthdqd ndansmncaa lfhgawwyhn
chqsnlngry
301 lsgshesyad ginwgtgqgh hysykvaemk iras
```

P57756. Ficolin 2 precursor (Collagen/fibrinogen domain-containing protein 2) (Ficolin-B) (Ficolin B) (Serum lectin P35) (EBP-37) (Hucolin) [gi:13124114]

(SEQ ID NO: 132)

```
1..22 /gene="FCN2" /region_name="Signal" /note="POTENTIAL."
23..319 /gene="FCN2" /region_name="Mature chain"
/note="FICOLIN 2."
48..86 /gene="FCN2" /region_name="Domain" /note="COLLAGEN-
LIKE."
```

. In re of:

137..283 /gene="FCN2" /region_name="Domain" /note="FIBRINOGEN C-TERMINAL."

306 /gene="FCN2" /site_type="glycosylation" /note="N-LINKED (GLCNAC...) (POTENTIAL)."

1 mvlgsaalfv lslcvteltl haadtcepvk vldlegsnkl tilqgcpglp
galgpkgeag

61 akgdragesl pghpgkagpt gpkgdrgek vrgkgdtgp sqscatgprt
ckelltrgyf

121 ltgwytiylp dcrpltlvld mtdtgggwtv fqrridgtvd ffrdwtsykq
gfgsqlgef

181 lgndnihalt tqgtneirvd ladfdgnhdf akyssfqiag eaekyklilg
nflggagds

241 ltsqnmlfs tkdqdndqgs sncavryhga wwysdchtsn lnglylrglh
ksyangvnwk

301 swkgynysyk vsemkvrl

JC5980. ficolin-A precurs - mouse [gi:7513652] (SEQ ID NO: 133)

1..21 /region_name="domain" /note="signal sequence"

50..64 /region_name="domain" /note="collagen-like"

68..106 /region_name="domain" /note="collagen-like"

123..334 /region_name="domain" /note="fibrinogen beta/gamma
homology #label FBG"

1 mqwptlwafs gllclcpsqa lgqergacpd vkvvglgagd kvvviqscpg
fpgppgpkge

61 pgspagrger gfggspgkmg pagskgepgt mgppgvkgek gdtgaapslg
ekelgdtlcq

121 rgprscdll trgifltgwy tihlpdcrpl tvlcmdvdg ggwtvfqrrv
dgsidffrdw

181 dsykrfgnl gtefwlgndy lhlrtangnq elrvdlqdfq gkgisyakyss
fqvseeqeky

241 kltlgqfleg tagdsltahn nmsftthdqd ndansmn'caa lfhgawwyhn
chqsnlngr

301 lsgshesyad ginwgtgqgh hysykvaemk iras

S61517. ficolin-1 precurs- human [gi:2135116] (SEQ ID NO: 134)
1..326 /note="36K HLA-cross-reactive plasma protein; hucolin,
35K"

1..22 /region_name="domain" /note="signal sequence"

52..108 /region_name="region" /note="collagen-like"

115..326 /region_name="domain" /note="fibrinogen beta/gamma
homology #label FBG"

305 /site_type="binding" /note="carbohydrate (Asn) (covalent)"

1 melsgatmar glavllvlfl hiknlpaqaa dtcpevkvg legsdkltil
rgcpglpgap

. In re of:

61 gpkgeagvig ergerglpga pgkagpvgpk gdrgekgmrg ekgdagqsqs
catgprnckd
121 lldrgyflsg whniylpdcrl pltlvclmdt dgggwtvfqr rmdgsvdfyr
dwaaykqgfg
181 sqlgefvlgn dnihaltaqg sselrvdlvd fegnhqfaky ksfkvadeae
kyklvlgafv
241 ggsagnsltg hnnnffstkd qdndvsssnc aekfqqawwy adchasslng
lylmgphesy
301 anginwsaak gykysykvse mkvrpa

A47172. transforming growth factor-beta 1-binding protein
homolog ficolin-alpha - pig [gi:423206] (SEQ ID NO: 135)

112..323 /region_name="domain" /note="fibrinogen beta/gamma
homology #label FBG"

1 mdtrgvaaam rplvllvafll ctaapalddc pevkvvgleg scklsilrgc
pglpgaagpk
61 geagasgpkq gggppgapge pgppgpkqdr gekgepgpkq esweteqclt
gprtckellt
121 rghilsgwht iylpdcqplt vlcdmtdtgg gwtvfqrrsd gsvdfyrdwa
aykrqfqsq
181 gefwlgndhi haltaqgtne lrvdlvdfeg nhqfakyrsl qvadeaekym
lvgafvegn
241 agdsltshnn slfttkdqdn dgyasncavl yqgawwynsc hvsnlngryl
ggshgsfang
301 vnwssgkgyn ysykvsemkf rat

JC4942. ficolin-1 precursor - human [gi:2135117] (SEQ ID NO: 136)

1..22 /region_name="domain" /note="signal sequence"
45..101 /region_name="region" /note="collagen-like"
108..319 /region_name="domain" /note="fibrinogen beta/gamma
homology #label FBG"
111..315 /region_name="region" /note="fibrinogen-like"
298 /site_type="binding" /note="carbohydrate (Asn) (covalent)"

1 marglavllv lflhiknlpa qaadtcepvk vvglegsdcl tilrgcpqlp
gapgpkgeag
61 vigergergl pgapgkagpv gpkqdrgekg mrgekqdagq sqscatgprn
ckdlldrgyf
121 lsgwhtiylp dcrpltlvcl mtdtgggwtv fqrrmdgsvd fyrdwaaykq
gfgsqlgefz
181 lgndnihalt aggsselrld lvdfeqnhqf akyksfkvad eaekyklvlq
afvggsagns
241 ltghnnnffs tkdqndvss sncaekfqa wwyadchasn lnglylmghp
esyanginws

. In re of:

301 aakgykysyk vsemkvrpa

AAF44911. symbol=BG:DS00929...[gi:7287873] (SEQ ID NO: 137)

1 mkscffvflfl wtllfevgqs sphtcpsgsp ngihqlmlpe eepfqvtqck
ttardwiviq

61 rrlldgsvnfn qswfsykdgf gdpngeffig lqklylmtre qphelfiqlk
hgpgatvyah

121 fddfqvdsset elyklervgk ysgtagdslr yhinkrfstf drdndesskn
caaehgggww

181 fhscslsr